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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,097	07/10/2003	Daniel E. Kobylarz	109.0010001	1967

7590 11/27/2006

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EXAMINER

HOLLIDAY, JAIME MICHELE

ART UNIT PAPER NUMBER

2617

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/617,097	Applicant(s) KOBYLARZ ET AL.	
	Examiner Jaime M. Holliday	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 9-12, 17-19 and 33-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 13-16 and 20-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see REMARKS/ARGUMENTS, filed September 11, 2006, with respect to the rejection(s) of claim(s) 1-4 and 6-8 under U.S.C. 102 (b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ephraim et al.

2. Applicant's arguments, with regards to claims 13 and 14 have been fully considered but they are not persuasive.

Applicants basically argue that Ephraim et al. does not teach a wireless device that is operable to transmit a first type of wireless communication to a first provider and a second type of wireless communication to a second provider.

Examiner respectfully disagrees, because, as cited in previous Office Action page 7 line 20- page 8 line 2, "A prepaid server may handle prepaid services for both a voice network and a data network. Data network is shown as being connected to both the Internet and data monitor. The prepaid server distributes tokens to both data monitor and voice network, such that both types of services can optionally be operated on a prepaid basis." Therefore, Ephraim et al. discloses the claimed limitation, in particular, a first type (data) and a second type (voice).

Applicants further argue that Ephraim et al. fail to teach that the wireless connections are based upon a predetermined number of units to be used and that the

Art Unit: 2617

usage is determined by the first and second providers that determine a number of remaining units through use of a calculation method, and that the wireless device includes a set of executable instructions operable to emulate the calculation method of the first provider, but rather, teach a prepaid billing system that intercepts a wireless communication to access data services and then allows the access based on the remaining account balance of the subscriber.

Examiner respectfully disagrees, because, as cited in previous Office Action page 7 lines 14-17, "It is noted that although the present discussion involves a server controlling the billing process, it is also contemplated that the wireless device can used and programmed to control or manage the prepaid billing as described herein." Therefore, Ephraim et al. discloses the claimed limitation, in particular, the billing process may be performed at the wireless device (wireless device includes a set of executable instructions operable to emulate the calculation method of the first provider).

3. Applicant's arguments, with respect to the rejection(s) of claim(s) 27-29 under U.S.C. 102 (b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Tysor.

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. **Claims 13 and 14** are rejected under 35 U.S.C. 102(b) as being anticipated by **Ephraim et al. (Pub # U.S. 2004/0077332 A1)**.

Consider **claim 13**, Ephraim et al. clearly show and disclose a system and method for providing prepaid data transfer services to a subscriber through a communication device, such as a wireless device. The communication device is connected to a data network for transferring data from a data source, such as the Internet. A prepaid system monitors the data network in order to determine whether a particular requested data transfer should be authorized or continued, for example according to the prepaid amount available in the account of the system (abstract). First, the subscriber prepays for service, and then uses a wireless device, such as a cellular telephone for example, to access data services, such as SMS or the Internet. The request for access is intercepted by the prepaid billing system of the present invention, which is preferably connected between the external network, or other gateway, which resides between the external network and the internal data network. The calculation of the debit is divided into two parts. In the first part, the component of the prepaid system, which actually receives the request from the user, calculates the debit in terms of "tokens", which are arbitrary internal units for charging for data transfer. It is noted that although the present discussion involves a server controlling the billing

process, it is also contemplated that the wireless device can used and programmed to control or manage the prepaid billing as described herein. Next, in the second part of the calculation process, the value of the "tokens" is converted to a monetary value for debiting the account of the user, optionally according to particular characteristics of the user (paragraphs 30-32). A prepaid server may handle prepaid services for both a voice network and a data network. Data network is shown as being connected to both the Internet and data monitor. The prepaid server distributes tokens to both data monitor and voice network, such that both types of services can optionally be operated on a prepaid basis. A slightly different billing system is used, particularly when a voice call is being handled by the voice network. In addition to the prepaid server handling the prepaid service, the prepaid server monitors the connection of the wireless device in the voice network, and sends a billing or time record of the connection at a set interval during the connection. For example, the interval could be set to send the connection data every one minute, reading on the claimed "wireless device, comprising: a transceiver operable to transmit and receive information via a wireless connection; wherein the device is operable to transmit and receive a first type of wireless communication to a first provider and a second type of wireless communication to a second provider; wherein the device is operable to conduct the first and second types of wireless connections based upon predetermined number of units to be used and wherein usage is determined by the first and second providers that determine a number of remaining units

through use of a calculation method; wherein the device includes a set of executable instructions operable to emulate a calculation method of the first provider,” (paragraphs 57-58).

Consider **claim 14**, and **as applied to claim 13 above**, Ephraim et al. further disclose that although a server controls the billing process, it is also contemplated that the wireless device can used and programmed to control or manage the prepaid billing. Since the prepaid server handles prepaid services for both a voice network and a data network, it is inherent that the wireless device may do the same, reading on the claimed “device is operable to emulate a calculation method of the second provider,” (paragraphs 31,57).

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 2617

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. **Claims 1-4, 6-8, 20-21 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hidem et al. (U.S. Patent # 5,749,052)** in view of **Ephraim et al. (Pub # U.S. 2004/0077332 A1)**.

Consider **claim 1**, Hidem et al. clearly show and disclose a cellular telephone, reading on the claimed "wireless device," that includes a receiver and a transmitter for receiving and transmitting cellular communication, reading on the claimed "transceiver in communication with the processor and operable to transmit and receive information via a wireless connection." A controller is coupled to the transmitter, receiver and an operator interface, reading on the claimed "processor." The controller includes a memory, reading on the claimed "memory in communication with the processor," for storing call rate information indicative of rates charged for the cellular and a timer providing a timing signal which is indicative of a time during which cellular communication takes place. The controller tracks an amount of currency to be charged for the cellular communications based on the call rate information and the timer signal. An administrator station is provided for loading a threshold amount of currency into the cellular telephone, reading on the claimed "the device is operable to provide a wireless connection based upon a plan having a predetermined number of available units, wherein plan usage is tracked by a provider through use of a

calculation method utilizing unit calculations that are not equal to exact time usage to decrement available units," (abstract, col. 1 line 67- col. 2 line 14).

However, Hidem et al. fail to specifically disclose that the cellular telephone performs the charging functions of the administrator station.

In the same field of endeavor, Ephraim et al. clearly show and disclose a system and method for providing prepaid data transfer services to a subscriber through a communication device, such as a wireless device. The communication device is connected to a data network for transferring data from a data source, such as the Internet. A prepaid system monitors the data network in order to determine whether a particular requested data transfer should be authorized or continued, for example according to the prepaid amount available in the account of the system (abstract). First, the subscriber prepays for service, and then uses a wireless device, such as a cellular telephone for example, to access data services, such as SMS or the Internet. The request for access is intercepted by the prepaid billing system of the present invention, which is preferably connected between the external network, or other gateway, which resides between the external network and the internal data network. The calculation of the debit is divided into two parts. In the first part, the component of the prepaid system, which actually receives the request from the user, calculates the debit in terms of "tokens", which are arbitrary internal units for charging for data transfer. It is noted that although the present discussion involves a server controlling the billing process, it is also contemplated that the wireless device can used and

programmed to control or manage the prepaid billing as described herein, reading on the claimed “device is operable to provide a wireless connection based upon a plan having a predetermined number of available units, wherein plan usage is tracked by a provider through use of a calculation method utilizing unit calculations that are not equal to exact time usage to decrement available units; and wherein the device is operable to emulate the calculation method of the provider in order to track the remaining available units on the device,” (paragraphs 30-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow a wireless device to function as a billing server as taught by Ephraim et al. in the cellular telephone of Hidem et al., in order to include pre-paid services within a cellular communications system.

Consider **claim 2**, Hidem et al., as modified by Ephraim et al., clearly show and disclose the claimed invention **as applied to claim 1 above**, and in addition, Hidem et al. further disclose that a user may select a shut down at zero dollars function which disables the phone when the credit amount issued reaches zero, reading on the claimed “device is operable to control access to the wireless connection and access is restricted when the device calculates there are no available units,” (col. 16 lines 35-43).

Consider **claim 3**, Hidem et al., as modified by Ephraim et al., clearly show and disclose the claimed invention **as applied to claim 2 above**, and in addition, Hidem et al. further disclose that additional call credit can be

programmed into the cellular telephone via the cellular network, reading on the claimed “device is operable to accept a predetermined number of units entered into the device and the device unrestricts the access to the wireless connection,” (col. 18 lines 5-6).

Consider **claim 4**, Hidem et al., as modified by Ephraim et al., clearly show and disclose the claimed invention **as applied to claim 1 above**, and in addition, Hidem et al. further disclose that the cellular telephone includes a transceiver, which includes a telephone control unit. The control unit in certain modes of operation cause alphanumeric information received from a DTMF receiver to be displayed. Thus, the alphanumeric information received by the cellular telephone can be viewed by the user. It is inherent that cellular telephones are capable of receiving voice communications. Also, the controller tracks an amount of currency to be charged for the cellular communications based on the call rate information and the timer signal. Therefore, it would be inherent that the controller can track alphanumeric information received by the cellular telephone using rate information, reading on the claimed “device is operable to transmit and receive a wireless data connection and a wireless voice connection and wherein data and voice usage is tracked by the provider through use of a calculation method utilizing unit calculations that are not equal to exact time usage to decrement available units,” (col. 2 lines 11-13, col. 5 lines 20-21, col. 6 lines 18-24).

Consider **claim 6**, Hidem et al., as modified by Ephraim et al., clearly show and disclose the claimed invention **as applied to claim 1 above**, and in addition, Hidem et al. further disclose that after a call is terminated, the control unit proceeds to release the voice channel, and the controller determines whether the call duration for the immediately previous call exceeded a call credit interval. In other words, if the call duration is less than a minimum interval, such as nineteen seconds, there is no charge made for the call, reading on the claimed "exact time usage is measured in seconds," (col. 12 lines 44-51).

Consider **claim 7**, Hidem et al., as modified by Ephraim et al., clearly show and disclose the claimed invention **as applied to claim 1 above**, and in addition, Hidem et al. further disclose that after the control unit performs an initialization function, the control unit determines whether the system identification variable (SID) for the system matches the SID for the phone. If the SID for the system matches the home SID for the telephone, the cellular telephone is in its home system. If not, the cellular telephone is outside its home system, and roaming charges may apply, reading on the claimed "device is operable to switch from a first method of calculation to a second method of calculation while the device is connected to the wireless connection," (col. 9 lines 30-40).

Consider **claim 8**, Hidem et al., as modified by Ephraim et al., clearly show and disclose the claimed invention **as applied to claim 1 above**, and in addition, Hidem et al. further disclose that that cellular telephone has the ability to

export and edit call detail records and billing information, reading on the claimed “device is operable to transmit usage information to the provider,” (col. 8 lines 1-3).

Consider **claim 20**, Hidem et al. clearly show and disclose a cellular telephone that includes a receiver and a transmitter for receiving and transmitting cellular communication, reading on the claimed “wireless device operable to receive a wireless connection from the provider and to transmit and receive information via the wireless connection.” A controller is coupled to the transmitter, receiver and an operator interface. An administrator station includes a second controller so that the administrator station can read information from the cellular telephone, program information into the cellular telephone and load a threshold amount of currency into the cellular telephone, reading on the claimed “wireless system comprising a wireless network operable to provide a wireless connection based upon a plan having a number of available units, wherein plan usage is tracked by the wireless network by utilizing a set of executable instructions operable to use a calculation method that uses unit calculations that are not equal to exact time usage to decrement available units,” (abstract, col. 1 line 67- col. 2 line 18).

However, Hidem et al. fail to specifically disclose that the cellular telephone performs the charging functions of the administrator station.

In the same field of endeavor, Ephraim et al. clearly show and disclose a system and method for providing prepaid data transfer services to a subscriber

through a communication device, such as a wireless device. The communication device is connected to a data network for transferring data from a data source, such as the Internet. A prepaid system monitors the data network in order to determine whether a particular requested data transfer should be authorized or continued, for example according to the prepaid amount available in the account of the system (abstract). First, the subscriber prepays for service, and then uses a wireless device, such as a cellular telephone for example, to access data services, such as SMS or the Internet. The request for access is intercepted by the prepaid billing system of the present invention, which is preferably connected between the external network, or other gateway, which resides between the external network and the internal data network. The calculation of the debit is divided into two parts. In the first part, the component of the prepaid system, which actually receives the request from the user, calculates the debit in terms of "tokens", which are arbitrary internal units for charging for data transfer. It is noted that although the present discussion involves a server controlling the billing process, it is also contemplated that the wireless device can used and programmed to control or manage the prepaid billing as described herein, reading on the claimed "wherein the device includes a set of executable instructions operable to emulate the calculation method of the provider to track the remaining available units," (paragraphs 30-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow a wireless device to function as a

billing server as taught by Ephraim et al. in the cellular telephone of Hidem et al., in order to include pre-paid services within a cellular communications system.

Consider **claim 21**, Hidem et al., as modified by Ephraim et al., clearly show and disclose the claimed invention **as applied to claim 20 above**, and in addition, Hidem et al. further disclose that the controller includes a memory for storing call rate information indicative of rates charged for the cellular and a timer providing a timing signal that is indicative of a time during which cellular communication takes place. The controller tracks an amount of currency to be charged for the cellular communications based on the call rate information and the timer signal, reading on the claimed "set of executable instructions operable to emulate the calculation method of the wireless network includes being operable to emulate a calculation method wherein the plan has a number of sets of units," (col. 2 lines 7-14).

Consider **claim 25**, Hidem et al., as modified by Ephraim et al., clearly show and disclose the claimed invention **as applied to claim 20 above**, and in addition, Hidem et al. further disclose that a user may select a shut down at zero dollars function which disables the phone when the credit amount issued reaches zero, reading on the claimed "wireless device is operable to block connection to the provider when the device calculates that there are no remaining units," (col. 16 lines 35-43).

9. **Claims 5, 22-24 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hidem et al. (U.S. Patent # 5,749,052)** in view of **Ephraim et al. (Pub # U.S. 2004/0077332 A1)**, and in further view of **Segal et al. (U.S. Patent # 6,167,251)**.

Consider **claim 5**, and **as applied to claim 1 above**, Hidem et al., as modified by Ephraim et al., clearly show and disclose the claimed invention except that voice and alphanumeric communications have different rates.

In the same field of endeavor, Segal et al. clearly show and disclose a keyless portable cellular phone system wherein matched sets of algorithmically generated communication units are generated, each communication pair defining a discrete time increment of authorized communication. One set is stored on a system server and the pre-paid set is available for use within a keyless portable cellular phone. Pre-paid access to different services is typically available to different preferred airtime cartridges. The user of a particular keyless portable cellular phone will have pre-paid access to the preferred services, depending on the paid capabilities of the airtime cartridge (e.g. a premium for having access to stock quotes). Therefore, an airtime cartridge providing premium services may be priced differently from a basic airtime cartridge. A user may have a plurality of airtime cartridges, therefore to provide pre-paid access to different calling service or preferred services, reading on the claimed "device is operable to emulate a plan wherein the wireless data and wireless voice connections have different calculation methods," (abstract, col. 30 lines 52-64).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow different prices for different services as a pre-paid feature as taught by Segal et al. in the cellular telephone of Hidem et al., as modified by Ephraim et al., in order to include pre-paid services within a cellular communications system.

Consider **claim 22**, and **as applied to claim 21 above**, Hidem et al., as modified by Ephraim et al., clearly show and disclose the claimed invention except the threshold rates and currency are grouped into different units.

In the same field of endeavor, Segal et al. clearly show and disclose a keyless portable cellular phone system wherein matched sets of algorithmically generated communication units are generated, each communication pair defining a discrete time increment of authorized communication. One set is stored on a system server and the pre-paid set is available for use within a keyless portable cellular phone. Different airtime cartridges can vary is the defined pre-paid time allotment for a set of single use airtime communication units. For example, one set may provide local call service and another set may provide long distance calls, reading on the claimed "units of at least one of the sets of units are different from at least one other set of units," (abstract, col. 18 lines 56-61).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow different units for different services as a pre-paid feature as taught by Segal et al. in the cellular telephone

of Hidem et al., as modified by Ephraim et al., in order to include pre-paid services within a cellular communications system.

Consider **claim 23**, and **as applied to claim 21 above**, Hidem et al., as modified by Ephraim et al., clearly show and disclose the claimed invention except the threshold rates and currency are grouped into different units.

In the same field of endeavor, Segal et al. clearly show and disclose a keyless portable cellular phone system wherein matched sets of algorithmically generated communication units are generated, each communication pair defining a discrete time increment of authorized communication. One set is stored on a system server and the pre-paid set is available for use within a keyless portable cellular phone. Different airtime cartridges can vary is the defined pre-paid time allotment for a set of single use airtime communication units. For example, one set may provide 30 minutes total service of local calls, while another set provides 60 minutes total service of long distance calls, reading on the claimed "emulation of a calculation method is operable to emulate a first calculation method for a first set of units and a second calculation method for a second set of units," (abstract, col. 18 lines 56-61).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow different units for different services as a pre-paid feature as taught by Segal et al. in the cellular telephone of Hidem et al., as modified by Ephraim et al., in order to include pre-paid services within a cellular communications system.

Consider **claim 24**, and **as applied to claim 20 above**, Hidem et al., as modified by Ephraim et al., clearly show and disclose the claimed invention except the pre-paid service is for a predetermined period of time.

In the same field of endeavor, Segal et al. clearly show and disclose a keyless portable cellular phone system wherein matched sets of algorithmically generated communication units are generated, each communication pair defining a discrete time increment of authorized communication. One set is stored on a system server and the pre-paid set is available for use within a keyless portable cellular phone. A pre-paid single use communication unit has a time value increment, which can be used to acquire services from a system server for a time equal to the time value increment. System use is limited to the total value of prepaid communication units within an authentication module of an airtime cartridge (i.e. the maximum duration of service is equivalent to the prepaid airtime, which is the sum of all the prepaid units, reading on the claimed "device is operable to receive a wireless connection provided based upon a plan for a predetermined period of time and wherein the device is operable to define a subset of units based upon a portion of the predetermined period of time," (abstract, col. 13 lines 35-55).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow different units with time increment values to equate to a maximum service duration as taught by Segal et al. in the

cellular telephone of Hidem et al., as modified by Ephraim et al., in order to include pre-paid services within a cellular communications system.

Consider **claim 26**, and **as applied to claim 20 above**, Hidem et al., as modified by Ephraim et al., clearly show and disclose the claimed invention except the cellular telephone communicates via the Internet.

In the same field of endeavor, Segal et al. clearly show and disclose a keyless portable cellular phone system wherein matched sets of algorithmically generated communication units are generated, each communication pair defining a discrete time increment of authorized communication. One set is stored on a system server and the pre-paid set is available for use within a keyless portable cellular phone. A keyless portable cellular telephone having a rechargeable airtime cartridge may be recharged for an acquired set of pre-paid airtime communication units. New sets of communication units may be installed within the airtime cartridge, such as through acquisition connection (e.g. an authorized Internet connection), reading on the claimed "wireless device is operable to transmit and receive information from the Internet," (abstract, col. 13 lines 35-55).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow the cellular phone to acquire communication units via the Internet as taught by Segal et al. in the cellular telephone of Hidem et al., as modified by Ephraim et al., in order to include pre-paid services within a cellular communications system.

10. **Claims 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ephraim et al. (Pub # U.S. 2004/0077332 A1)** in view of **Bagoren et al. (U.S. Patent # 6,934,529)**.

Consider **claim 15**, and **as applied to claim 13 above**, Ephraim et al. clearly show and disclose the claimed invention except that the remaining monetary balance or token balance is transmitted from the server.

In the same field of endeavor, Bagoren et al. clearly show and disclose a method for replenishing a pre-paid telecommunications account. A pre-paid service control point (PP-SCP) determines when an account needs to be replenished via interaction with a pre-paid mobile subscriber (PP-MS) database. When it is near time to replenish the account, the PP-SCP sends a message to a pre-paid payment server (PP-Payment SVR), which may be part of or separate from the PP-SCP. The PP-Payment SVR composes an SMS message and sends it to a short message service center (SMSC). The SMSC an SMS message to the MSC. The MSC then forwards the SMS message to the subscriber's mobile unit. This message preferably includes an alphanumeric message and triggers an auditory warning that a message has arrived. The aforementioned message preferably states the balance on the account, either in dollars or minutes or both, reading on the claimed "device is operable to receive a calculated remaining amount of units from the second provider," (col. 1 lines 45-46, col. 2 line 57- col. 3 line 14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to the system transmit the account balance to the subscriber's mobile unit as taught by Bagoren et al. in the cellular telephone of Ephraim et al., in order to provide pre-paid services within a cellular communications system effectively.

Consider **claim 16**, Ephraim et al., as modified by Bagoren et al., clearly show and disclose the claimed invention **as applied to claim 15 above**, and in addition, Bagoren et al. further disclose that the MSC forwards the SMS message to the subscriber's mobile unit that includes an alphanumeric message and triggers an auditory warning that a message has arrived. The aforementioned message preferably states the balance on the account, either in dollars or minutes or both, reading on the claimed "device is operable to receive a calculated remaining amount of units from the second provider by Short Message Service (SMS)," (col. 3 lines 4-9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to the system transmit the account balance to the subscriber's mobile unit using SMS messaging as taught by Bagoren et al. in the cellular telephone of Ephraim et al., in order to provide pre-paid services within a cellular communications system effectively.

11. **Claims 27-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ephraim et al. (Pub # U.S. 2004/0077332 A1)** in view of **Tysor (U.S. Patent # 6,970,692 B2)**.

Consider **claim 27**, Ephraim et al. clearly show and disclose a system and method for providing prepaid data transfer services to a subscriber through a communication device, such as a wireless device. The communication device is connected to a data network for transferring data from a data source, such as the Internet. A prepaid system monitors the data network in order to determine whether a particular requested data transfer should be authorized or continued, for example according to the prepaid amount available in the account of the system (abstract). First, the subscriber prepays for service, and then uses a wireless device, such as a cellular telephone for example, to access data services, such as SMS or the Internet. The request for access is intercepted by the prepaid billing system of the present invention, which is preferably connected between the external network, or other gateway, which resides between the external network and the internal data network. The calculation of the debit is divided into two parts. In the first part, the component of the prepaid system, which actually receives the request from the user, calculates the debit in terms of "tokens", which are arbitrary internal units for charging for data transfer. Next, in the second part of the calculation process, the value of the "tokens" is converted to a monetary value for debiting the account of the user, optionally according to particular characteristics of the user (paragraphs 30-32). A prepaid server is

responsible for translating the money received from the subscriber into tokens, optionally and more preferably according to the date, time, location of the mobile station at the time of transfer and subscriber's Class of Service. In order to assist communication between data monitor and prepaid server a Token Request and Refund Message is provided. This message is preferably used by data monitor to interact with the prepaid server for subscriber authentication and token transfers. The message is used when the previously transmitted tokens have expired, in which case they are refunded and new (fresh) tokens are requested, or when the user disconnects. The expiration of tokens occurs at any interval, or at any set time, desired by the system operator. Expiration is used to value tokens differently for different times of use. For example, on weekends and holidays tokens can be valued at 40 tokens for \$1.00, whereas nights can be valued at 30 tokens for \$1.00 and daytime/weekday tokens can be valued at 20 tokens for \$1.00. The prepaid server sends the tokens to the data monitor with expiration times, so that the data monitor send the tokens back to the prepaid server when they expire to exchange them for "new" tokens reflecting the new value. The subscriber is notified of changes in balance and account status while wireless device is engaged in a data transfer. Most preferably, the subscriber is notified that access denial is about to occur during the data transfer, if the remaining amount in the account of the subscriber is not sufficient to complete the data transfer. For example, if data monitor requires tokens for the transfer, but is informed by prepaid server that no more tokens can be obtained, then preferably

this imminent access denial is communicated to the subscriber, reading on the claimed "method for emulating a wireless provider's post paid plan on a prepaid device, comprising: assigning available units, of access to a wireless connection, to be decremented based upon usage during a first time interval and a second time interval; restricting access to a wireless connection if the at least the first units have been decremented to zero; and adding additional units to the first and second units to replenish the numbers of available units," (paragraphs 47, 54-55).

However, Ephraim et al. fail to specifically disclose that the tokens are allocated based on time intervals.

In the same field of endeavor, Tysor clearly shows and discloses a method for providing a cellular phone user with accurate feedback of available minutes in a service plan based on specific plan usage is disclosed. A user enters service plan information including the time period of the plan, the number of peak minutes, the number of off-peak minutes, and other features associated with the plan on his cellular phone. The entered information is stored in the cellular phone's memory. Minute usage is tracked and a display of available minutes is provided to the user. When a call is made or received on the cellular phone, the length of the call is monitored, and then a determination whether the call occurred during peak period or off-peak period is made. When the call occurred during peak period, the length of the call is deducted from the available number of minutes remaining for that peak period. However, when the call

occurred during off-peak period the deduction is made from the remaining minutes of the off-peak plan period. The remaining minutes are then displayed on the display screen of the cellular phone, reading on the claimed "assigning a first number of available units, of access to a wireless connection, to be decremented based upon usage during a first time interval; assigning a second number of available units, of access to a wireless connection, to be decremented based upon usage during a second time interval; decrementing the assigned first and second numbers of units," (abstract, fig. 6, col. 6 lines 25-39).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to track peak and off-peak minutes as taught by Tysor in the cellular telephone of Ephraim et al., in order to provide pre-paid services within a cellular communications system effectively.

Consider **claim 28**, Ephraim et al., as modified by Tysor, clearly show and disclose the claimed invention **as applied to claim 27 above**, and in addition, Ephraim et al. further disclose that the expiration of tokens occurs at any interval, or at any set time, desired by the system operator. Expiration is used to value tokens differently for different times of use. For example, on weekends and holidays tokens can be valued at 40 tokens for \$1.00, whereas nights can be valued at 30 tokens for \$1.00 and daytime/weekday tokens can be valued at 20 tokens for \$1.00, reading on the claimed "second time interval is within the first time interval," wherein the time intervals are weekends and holidays, nights, and daytime/weekday (paragraph 55).

Consider **claim 29**, Ephraim et al., as modified by Tysor, clearly show and disclose the claimed invention **as applied to claim 27 above**, and in addition, Ephraim et al. further disclose that the expiration of tokens occurs at any interval, or at any set time, desired by the system operator. Expiration is used to value tokens differently for different times of use. For example, on weekends and holidays tokens can be valued at 40 tokens for \$1.00, whereas nights can be valued at 30 tokens for \$1.00 and daytime/weekday tokens can be valued at 20 tokens for \$1.00, reading on the claimed "first time interval is for anytime communication and the second time interval is for night and weekend communication," wherein the time intervals are weekends and holidays, nights, and daytime/weekday (paragraph 55).

12. **Claims 30-32** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ephraim et al. (Pub # U.S. 2004/0077332 A1)** in view of **Tysor (U.S. Patent # 6,970,692 B2)**, and in further view of **Hidem et al. (U.S. Patent # 5,749,052)**.

Consider **claim 30**, and **as applied to claim 27 above**, Ephraim et al., as modified by Tysor, clearly show and disclose the claimed invention except that tokens are replenished before there are none left.

In the same field of endeavor, Hidem et al. clearly show and disclose a cellular telephone that includes a receiver and a transmitter for receiving and transmitting cellular communication. A controller is coupled to the transmitter, receiver and an operator interface. The controller includes a memory for storing

call rate information indicative of rates charged for the cellular and a timer providing a timing signal, which is indicative of a time during which cellular communication takes place. The controller tracks an amount of currency to be charged for the cellular communications based on the call rate information and the timer signal. If the controller determines that a weekly update period has been authorized, it determines whether at least a week has passed since the last update. If a week has passed, then the controller sets the MaxCCAmt (maximum amount of money the user is entitled to during a specified update period) from the rate table in the memory into the MaxCCAmount field of the present user, and then sets the CCAmount (amount of money that was last unloaded from the cellular telephone) to InitCCAmt (amount of money the user is entitled to at the beginning of every operational period) from the rate tables, reading on the claimed "adding additional units to the first and second units to replenish the numbers of available units includes adding units before the first and second units have been decremented to zero," (col. 1 line 67 – col. 2 line 11).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to update the call credit on a scheduled basis, i.e. weekly, as taught by Hidem et al. in the cellular telephone of Ephraim et al., as modified by Tysor, in order to provide pre-paid services within a cellular communications system effectively.

Consider **claim 31**, the combination of Ephraim et al. and Tysor, as modified by Hidem et al., clearly show and disclose the claimed invention **as**

applied to claim 30 above, and in addition, Hidem et al. further disclose that if the controller determines that a weekly update period has been authorized, it determines whether at least a week has passed since the last update. If a week has passed, then the controller sets the MaxCCAmt (maximum amount of money the user is entitled to during a specified update period) from the rate table in the memory into the MaxCCAmount field of the present user, and then sets the CCAmount (amount of money that was last unloaded from the cellular telephone) to InitCCAmt (amount of money the user is entitled to at the beginning of every operational period) from the rate tables, reading on the claimed “adding additional units to the first and second units to replenish the numbers of available units includes adding units before the first and second units have been decremented to zero,” (col. 1 line 67 – col. 2 line 11).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to update the call credit on a scheduled basis, i.e. weekly, as taught by Hidem et al. in the cellular telephone of Ephraim et al., as modified by Tysor, in order to provide pre-paid services within a cellular communications system effectively.

Consider **claim 32**, the combination of Ephraim et al. and Tysor, as modified by Hidem et al., clearly show and disclose the claimed invention **as applied to claim 30 above**, and in addition, Hidem et al. further disclose that if NewMaxCCAmt is not greater than zero then the controller programs the cellular telephone by setting the call credit amount in cellular telephone to CCAmount

Art Unit: 2617

plus MaxCCAmount. Controller then lets NewMaxCCAmount equal zero, reading on the claimed "decrementing the numbers of first and second units to zero after a period of time has passed since the units were assigned," (col. 13 lines 50-52).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to set the maximum call credit to zero as taught by Hidem et al. in the cellular telephone of Ephraim et al., as modified by Tysor, in order to provide pre-paid services within a cellular communications system effectively.

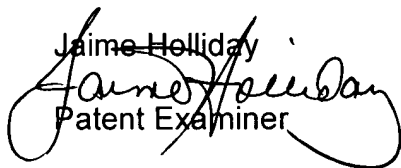
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaime M. Holliday whose telephone number is (571) 272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

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